

the same oscillograph plates, and the deflections are registered on the photographic film within a few milliseconds after the record is completed.

The unit was designed, constructed, and applied to ballistic studies by the Bureau's interior ballistics

laboratory. Although this instrument was developed to provide a decimal staircase, the maximum of which is adjustable from 10 to 100 mv, the principle may be applied to calibrators that will give any desired number of potential steps.

## NBS Publications

### Periodicals<sup>6</sup>

Journal of Research of the National Bureau of Standards, volume 41, number 5, November 1948. (RP1930 to RP1937 inclusive.)

Journal of Research of the National Bureau of Standards, volume 40, Title page, corrections, and contents, January to June 1948. (RP1850 to RP1895, inclusive). 5 cents.

Technical News Bulletin, volume 32, number 11, November 1948. 10 cents.

CRPL-D50. Basic Radio Propagation Predictions for January 1949. Three months in advance. Issued October 1948. 10 cents.

### Nonperiodical

#### RESEARCH PAPERS<sup>6,7</sup>

RP1922. Color perceptions of deuteranopic and protanopic observers. Deane B. Judd. 15 cents.

RP1923. Electrode function (pH response) of the soda-silica glasses. Gerald F. Rynders, Oscar H. Grauer, and Donald Hubbard. 10 cents.

RP1924. Effect of temperature on the volume of leather and collagen. Charles E. Weir. 10 cents.

RP1925. Image shifts caused by rotating a constant-deviation prism in divergent light. James B. Saunders. 10 cents.

RP1926. Thimble-chamber calibration on soft X-rays. Frank H. Day. 10 cents.

RP1927. Sources of error in and calibration of the *f*-number of photographic lenses. Francis E. Washer. 10 cents.

RP1928. Mass spectrometric investigation of the thermal decomposition of polymers. Leo A. Wall. 10 cents.

RP1929. Purification, purity, and freezing points of 30 hydrocarbons of the API-Standard and API-NBS series. Anton J. Streiff, Janice C. Zimmerman, Laurel F. Soule, Marie T. Butt, Vincent A. Sedlak, Charles B. Willingham, and Frederick D. Rossini. 20 cents.

#### CIRCULARS<sup>6</sup>

C460. Publications of the National Bureau of Standards. 1901 to June 30, 1947. 75 cents.

C470. Precision resistors and their measurement. James L. Thomas. 20 cents.

C473. Measurement of radioactive isotopes. Leon F. Curtiss. 5 cents.

#### COMMERCIAL STANDARDS<sup>6</sup>

CS77-48. Enameled cast-iron plumbing fixtures. (Second edition. Supersedes CS77-40). 10 cents.

CS150-48. Hot-rolled rail steel bars (Produced from tee-section rails). 10 cents.

#### LETTER CIRCULARS<sup>8</sup>

LC922. Bibliography of some recent research in the field of high polymers. (Supersedes LC871 and Supplement.)

LC923. Acoustics: Publications by members of the staff of the National Bureau of Standards. (Supersedes LC778).

### Articles by Bureau Staff Members in Outside Publications<sup>9</sup>

Some properties of materials used for jewel instrument bearings. Herbert Insley, H. F. McMurdie, W. H. Parsons, and B. L. Steierman. American Mineralogist (c/o Dr. Earl Ingerson, U. S. Geological Survey, Washington 25, D. C.) 32, 1 (1947).  
Determination of iron in glass sand. J. J. Diamond. J. Am. Ceramic Soc. (2525 North High Street, Columbus 2, Ohio) 31, 243 (1948).

Effect of support on the performance of vane anemometers. G. B. Schubauer and G. H. Adams. Heating and Ventilating (148 Lafayette Street, New York 13, N. Y.) 45, No. 4, 78 (1948).

<sup>6</sup> Send orders for publications under this heading only to the Superintendent of Documents, Government Printing Office, Washington 25, D. C. Annual subscription rates: Journal of Research, \$4.50 (foreign \$5.50); Technical News Bulletin, \$1.00 (foreign \$1.25); Basic Radio Propagation Predictions, \$1.00 (foreign \$1.25). Single copy prices of publications are indicated in the lists.

<sup>7</sup> Reprints from October Journal of Research.

<sup>8</sup> Letter Circulars are prepared to answer specific inquiries addressed to the National Bureau of Standards, and are sent only on request to persons having a definite need for the information. The Bureau cannot undertake to supply lists or complete sets of Letter Circulars or send copies automatically as issued.

<sup>9</sup> These publications are not available from the Government. Requests should be sent direct to the publishers.

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